

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method for the automatic configuration of a determined device (~~11', 21'~~) of a packet switching data transmission network (~~1~~) on which are defined at least one first virtual subnet (~~1e~~) for network devices of a first type (~~11~~) and at least one second virtual subnet (~~1d~~) for network devices of a second type (~~21~~), said determined device being physically connected to any one of said first and second virtual subnets and belonging to any one of said first and second types, the method comprising the steps wherein the device performs the steps of:

- sending (~~71, 91~~), in broadcast mode broadcasting over the virtual subnet to which it is physically connected, a first lease request comprising an identifier (~~TID~~) of the type to which it belongs;
- receiving (~~72-74, 92-94~~), in response to said first lease request, a first lease containing an address (~~@IP/1e~~) on the virtual subnet to which it is physically connected, an identifier (~~VID~~) of the virtual subnet of the devices of the type to which it belongs, and, if it does not belong to the type of the devices of the virtual subnet to which it is connected, a cue (~~TAG~~) for activating tagging of the frames with said identifier;
- if said first lease contains said tagging activation cue:
- releasing (~~75~~) said first lease;
- sending (~~76~~), in broadcast mode broadcasting over the virtual subnet of the devices of the type to which it belongs, a second lease request tagged with said identifier of the virtual subnet of the devices of the type to which it belongs; and
- receiving (~~77-79~~), in response to said second lease request, a second lease containing an address (~~@IP/1d~~) on the virtual subnet of the devices of the type to which it belongs;
- otherwise retaining said first lease.

2. (currently amended): The method ~~as claimed in~~ of claim 1, wherein the first lease further contains a priority number (~~PRIQ~~) associated with the device, and wherein said second lease request contains said priority number.

3. (currently amended): The method as claimed in claim 1 ~~or claim 2~~, wherein the first lease request in broadcast mode is relayed in uni-recipient mode, via at least one appropriate router (~~100~~), to a first configuration server (~~30—broken lines~~) which is not physically connected to the virtual subnet to which the device is physically connected.

4. (currently amended): The method ~~as claimed in any one of claims 1 to 3~~ of claim 1, wherein the second lease request in broadcast mode is relayed in uni-recipient mode, via at least one appropriate router (~~100~~), to the first configuration server or to a second configuration server (~~30'~~) which is not physically connected, respectively which are not connected to the virtual subnet of the devices of the type to which the device belongs.

5. (currently amended): The method ~~as claimed in any one of claims 1 to 4~~ of claim 1, wherein the first lease request and the second lease request are processed by one and the same configuration server which manages a first address range on the first virtual subnet and a second address range on the second virtual subnet.

6. (currently amended): The method ~~as claimed in any one of the preceding claims of~~ claim 1, wherein the data transmission network is an Ethernet network defined by the IEEE 802.3 standard.

7. (currently amended): The method ~~as claimed in any one of the preceding claims of~~ claim 1, wherein the virtual subnets are defined by the IEEE 802.1 Q/P standard.

8. (currently amended): The method ~~as claimed in any one of the preceding claims of~~ claim 1, wherein the devices of the first type and/or the devices of the second type are terminal devices.

9. (currently amended): The method ~~as claimed in~~ of claim 8, wherein the devices of the first type comprise general-purpose computers, and/or wherein the devices of the second type comprise telephone sets.

10. (currently amended): The method ~~as claimed in any one of the preceding claims of claim 1~~, wherein the device (21) comprises a switch (50) having an output communication port (51) for the physical link to the network and at least two input communication ports, one (53) of which is adapted for receiving/sending a packet stream from/to the device, and the other (52) of which is adapted for receiving/sending a packet stream from/to a device of the second type (11) if the device is of the first type or from/to a device of the first type if the device is of the second type.

11. (currently amended): The method ~~as claimed in any one of claims 3 to 10 of claim 3~~, wherein the configuration server or servers employ the DHCP configuration protocol.

12. (currently amended): A system comprising a packet switching data transmission network (1) on which are defined at least one first virtual subnet (1e) for network devices of a first type (11) and at least one second virtual subnet (1d) for network devices of a second type (21), further comprising a ~~determined~~ device (11', 21') which is physically connected to any one of said first and second virtual subnets and which belongs to any one of said first and second types, wherein said device ~~is adapted for implementing a method as claimed in claim 1~~ configured for:

- broadcasting over the virtual subnet to which it is physically connected, a first lease request comprising an identifier of the type to which it belongs;

- receiving, in response to said first lease request, a first lease containing an address on the virtual subnet to which it is physically connected, an identifier of the virtual subnet of the devices of the type to which it belongs, and, if it does not belong to the type of

the devices of the virtual subnet to which it is connected, a cue for activating tagging of the frames with said identifier;

- if said first lease contains said tagging activation cue:

- releasing said first lease;

- broadcasting over the virtual subnet of the devices of the type to which it belongs, a second lease request tagged with said identifier of the virtual subnet of the devices of the type to which it belongs; and

receiving, in response to said second lease request, a second lease containing an address on the virtual subnet of the devices of the type to which it belongs;

- otherwise retaining said first lease.

13. (currently amended): The system ~~as claimed in~~ of claim 12, wherein the first lease further contains a priority number (PRIO) associated with the device, and wherein said second lease request contains said priority number.

14. (currently amended): The system ~~as claimed in claim 12 or claim 13~~ of claim 12, further comprising at least one router (100) for relaying, in uni-recipient mode, the first lease request to a first configuration server (30 ~~broken lines~~) of the system, which is not physically connected to the virtual subnet to which the device is physically connected.

15. (currently amended): The system ~~as claimed in any one of claims 12 to 14~~ of claim 12, further comprising a router (100) adapted for relaying, in uni-recipient mode, the second lease request to the first configuration server or to a second configuration server of the system (30) which is not physically connected, respectively which are not connected to the virtual subnet of the devices of the type to which the device belongs.

16. (currently amended): The system ~~as claimed in any one of claims 12 to 15 of~~ claim 12, further comprising, for processing the first lease request and the second lease request, one and the same configuration server which manages a first address range on the first virtual subnet and a second address range on the second virtual subnet.

17. (currently amended): The system ~~as claimed in any one of claims 12 to 16 of~~ claim 12, wherein the data transmission network is an Ethernet network defined by the IEEE 802.3 standard.

18. (currently amended): The system ~~as claimed in any one of claims 12 to 17 of~~ claim 12, wherein the virtual subnets are defined by the IEEE 802.1 Q/P standard.

19. (currently amended): The system ~~as claimed in any one of the preceding claims of~~ claim 12, wherein the devices of the first type and/or the devices of the second type are terminal devices.

20. (currently amended): The system ~~as claimed in~~ of claim 19, wherein the devices of the first type comprise general-purpose computers, and/or wherein the devices of the second type comprise telephone sets.

21. (currently amended): The system ~~as claimed in one of the claims 12 to 20 of~~ claim 12, wherein the device (21') comprises a switch (50) having an output communication port (51) for the physical link to the network and at least two input communication ports, one (53) of which is adapted for sending/receiving a packet stream from/to the device, and the other (52) of which is adapted for sending/receiving a packet stream from/to a device of the second type (41') if the device is of the first type or from/to a device of the first type if the device is of the second type.

22. (currently amended): The system ~~as claimed in any one of claims 12 to 21 of claim 12~~, wherein the configuration server or servers employ the DHCP configuration protocol.

23. (currently amended): A device of a packet switching data transmission network (1) on which are defined at least one first virtual subnet (~~1e~~) for network devices of a first type (~~11~~) and at least one second virtual subnet (~~1d~~) for network devices of a second type (~~21~~), the device belonging to any one of said first and second types and comprising means for executing a method as claimed in claim 1 or claim 2 :

- broadcasting over the virtual subnet to which it is physically connected, a first lease request comprising an identifier of the type to which it belongs;

- receiving, in response to said first lease request, a first lease containing an address on the virtual subnet to which it is physically connected, an identifier of the virtual subnet of the devices of the type to which it belongs, and, if it does not belong to the type of the devices of the virtual subnet to which it is connected, a cue for activating tagging of the frames with said identifier;

- if said first lease contains said tagging activation cue:

- releasing said first lease;

- broadcasting over the virtual subnet of the devices of the type to which it belongs, a second lease request tagged with said identifier of the virtual subnet of the devices of the type to which it belongs; and

- receiving, in response to said second lease request, a second lease containing an address on the virtual subnet of the devices of the type to which it belongs;

- otherwise retaining said first lease.

24. (currently amended): The device ~~as claimed in~~ of claim 23, comprising a switch ~~(50)~~ having an output communication port ~~(51)~~ for the physical link to the network and at least two input communication ports ~~(52, 53)~~, one of which is adapted for receiving/sending a packet stream from/to the device, and the other of which is adapted for receiving/sending a packet stream from/to a device of the second type if the device is of the first type or from a device of the first type if the device is of the second type.

25 (New): The device of claim 23, wherein the first lease further contains a priority number associated with the device, and wherein said second lease request contains said priority number.